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ABSTRACT

This "blueprint" was developed to provide educators in Florida with a unified vision of where career education is heading. It is designed to address the increasing gap between emerging job requirements and the ability of Florida's work force to meet them. It was developed to prepare students for the world of work, a competitive global marketplace that is changing every day. It is also designed to enable all high school graduates to get a job. The blueprint provides a rationale and framework for career education, sets goals, and suggests practical methods of achieving them for each grade level. It also advocates school-business partnerships and describes some possibilities. Following a statement of the Department of Education's commitment to leadership, the blueprint sets out a 6-year plan for action to enable all schools in Florida to participate in the plan. A glossary, a chart comparing rates of growth in occupations between 1984 and 2000, and a 23-item bibliography are included in this document. (KC)

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UPDATE

BLUEPRINT FOR CAREER PREPARATION

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BLUEPRINT FOR CAREER PREPARATION

"We must change the way we do business in education . . . because business is depending on it. In fact, our entire economic survival is depending on it."

– Betty Castor, Florida Commissioner of Education

THE FLORIDA DEPARTMENT OF EDUCATION
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"The American workforce is running out of qualified people. If current demographic and economic trends continue, American business will have to hire a million new workers a year who cannot read, write or count."

–David Kearns, Chairman of Xerox

EXECUTIVE SUMMARY

Education and economics. They are intertwined . . . and interdependent. Never before has it been more important for our state to recognize the relationship between the way we educate our young people and the jobs available in Florida's future.

Demographics are changing, and we now operate in a competitive global marketplace. That's why we must change the way we do business in education. When business produces an inferior product, it fixes the product. Education is not producing what business needs, so we must fix our product. Business is depending on it. In fact, our entire economic survival is depending on it.

What is the Blueprint for Career Preparation?

The Blueprint is the direction Florida has chosen to go. Just as a builder needs a blueprint before starting construction, an enterprise as large as education in Florida needs a unified vision of where it's heading. This Blueprint provides that vision.

It is designed to address the increasing gap between emerging job requirements and the ability of Florida's workforce to meet them. It is designed to prepare students for the world of work, a competitive global marketplace that is changing every day. It is designed to enable all graduates to get a job.

The driving force behind this Blueprint is a major policy embodied in the following statement:

> "Students graduating from Florida's public schools shall be prepared to begin a career and continue their education at a postsecondary technical school, community college or university."

The Blueprint is the guide for preparing all Florida students, including students with disabilities, to begin a career and to continue their education.

While everyone agrees it cannot be achieved quickly, this Blueprint describes the steps to get there.

Why do we need a change?

The evidence is overwhelming. Scores of business publications and research documents conclude that America is losing its competitive edge in a global economy. The reason: a workforce unprepared for the changing workplace.

If recent trends continue, up to three-quarters of the new employees through the year 2000 will have insufficient verbal and writing skills. The nation is facing a monumental mismatch between jobs and the ability of Americans to do them. That's because technology is changing the work required in most jobs, and growth areas will be mainly in high skill occupations. The tools we use are more complicated, each requiring more flexibility and more knowledge. In addition, we're changing the way work is organized, and requiring far more communications skills.

Demographics also have changed. This has had a tremendous impact on Florida's ability to train students, whose numbers grow every day. Eighty percent of new workers at the turn of the century in Florida will be minorities or women. Young students who are currently economically or socially disadvantaged will make up a large portion of tomorrow's workforce.

Unfortunately, corporate America has been forced to spend $200 billion a year on training and retraining its workforce, and at least $35 billion on remedial training. A third of Florida's small businesses say that their new workers usually needed some remedial training. Business and industry are demanding a more qualified workforce.

How do we get there?

The Blueprint touches all levels of education, taking the core curriculum of basic skills and making it relevant to today's workplace. The key is providing each student with guidance and opportunity. Schools must integrate academic and vocational education, making both meaningful to the student's career development. Curriculum should relate to careers, and vice versa. This does not mean that the teaching of basic skills and graduation requirements will be changed, or that students must choose between an academic tract and a vocational tract. The integration of the two approaches means the students will get both career and academic training. The following six steps to career preparation are essential:

1. *Begin in kindergarten through fifth grade by developing in students an awareness of self, the value of work and exposure to careers and technology.*

2. *By grade six, students – with the help of their teachers and parents – should assess personal aptitudes, abilities and interests, and relate them to careers. They should also learn the role of technology in the world of work.*

3. *In grades seven and eight, students should set career-oriented goals and develop a four-year program of study for grades nine through 12 that supports these. These plans may change as they are reviewed annually by students, parents and educators. They set students on a course and provide a basis for curriculum selection.*

4. *During high school, a new "applied curriculum" will make academic concepts relevant to the workplace, especially in communications, math and science. Vocational courses and academic instruction are integrated to enhance student competencies in academic skills.*

5. *Students choosing postsecondary education programs should be able to successfully gain employment, advance within their fields or change occupations. Vocational-technical centers, community colleges and universities deliver these programs.*

6. *Educators should intensify efforts to share information and to involve parents, business and the entire community in this process. Partnerships and the involvement of people beyond educators are critically important.*

Along the way, it is important to evaluate our progress. We must measure results through the ability of future graduates to succeed in the job market and the ability of employers to find qualified workers. This will be accomplished through a variety of methods including but not limited to, Florida Education and Training Placement Information Program (FETPIP) of the Department of Education and external business groups.

Where do we begin?

We already have. Fortunately for Florida, the key elements are already in place. Four major components – secondary schools, vocational centers, community colleges and universities – all have programs with the potential to prepare Florida's workforce. This Blueprint proposes no major structural changes within the system.

But it does propose better coordination, more resources, more training and a healthy dose of attitude adjustment among educators concerning the role of schools. The Department of Education will play a leadership role, seeking legislation, expanding partnerships and providing technical assistance. This Blueprint proposes activities over the next six years, including pilot projects, curriculum changes, scholarship programs, training and evaluation.

The education of our children is serious business. Our state, more than most, must compete in a world marketplace. Florida's unique composition is a challenge as well as an opportunity. We're taking on that challenge. We're changing the way we do business in education. Because business – and economics – demand it.

BLUEPRINT FOR CAREER PREPARATION

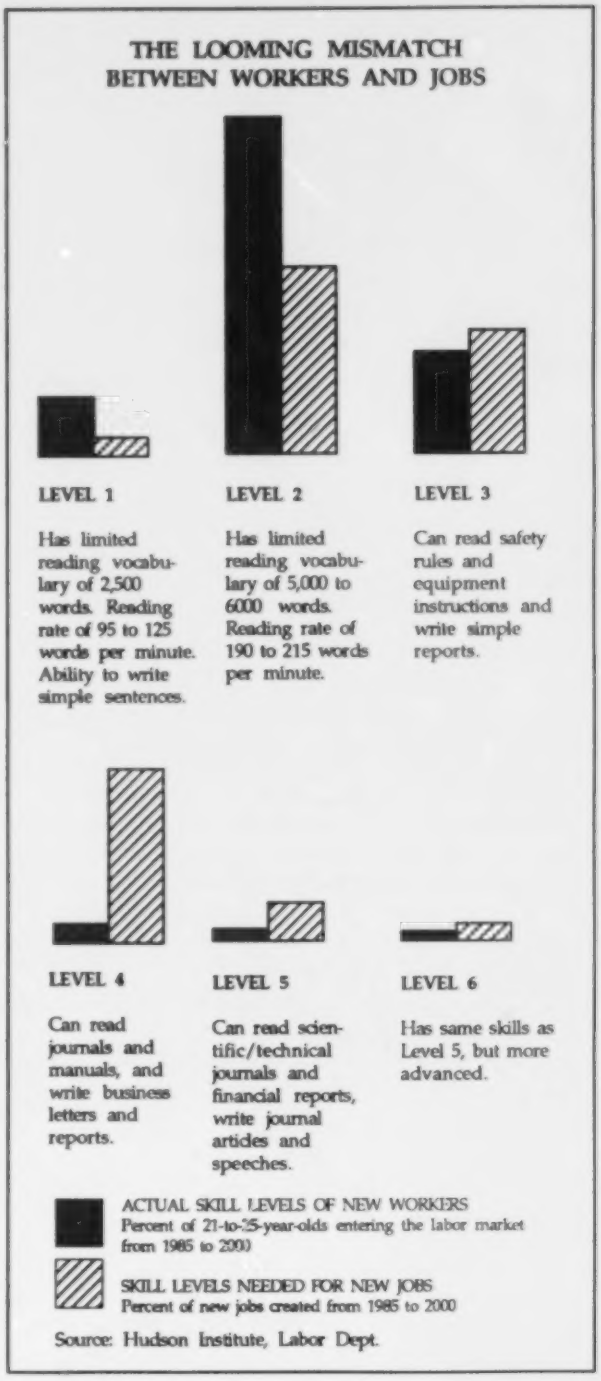
The **Blueprint for Career Preparation** provides the framework for educators to prepare youth and adults to successfully enter and remain in their chosen fields of work. This framework requires the provision of a comprehensive education program including self awareness, career awareness, academic and vocational preparation and placement components for each student.

AN URGENT NEED

A consensus exists among educators, researchers, business representatives and political leaders that the schools of today will have a major role in the state's future economic strength and overall quality of life. During the next six years there will be 2.5 million new jobs created in Florida. These jobs will call for persons who can read, write, compute, communicate and understand the workplace.

According to **Business Week** (September 19, 1988), more than three-quarters of this country's new employees through the year 2000 will have deficient verbal and writing skills. Most new jobs will require individuals who have good reading and writing skills, but fewer than one in four of the new employees will be able to function at the required levels. Retail sales, for example, will be among the occupations providing the most new jobs.

To fill those jobs, most retail employees will have to write orders, compute price lists and read merchandise catalogs. Hudson Institute, an economic think tank, estimates that just 22% of the new employees will be able to function at that level. For jobs in nursing or management, the educational ante is higher. Most of these jobs, often require workers with more than a high school education; persons who have skills such as the ability to read journals and manuals, write reports and understand complex terminology. Just 5% of the new employees will be able to do that. The task ahead is to educate and train the young workforce entrants. A large proportion of these

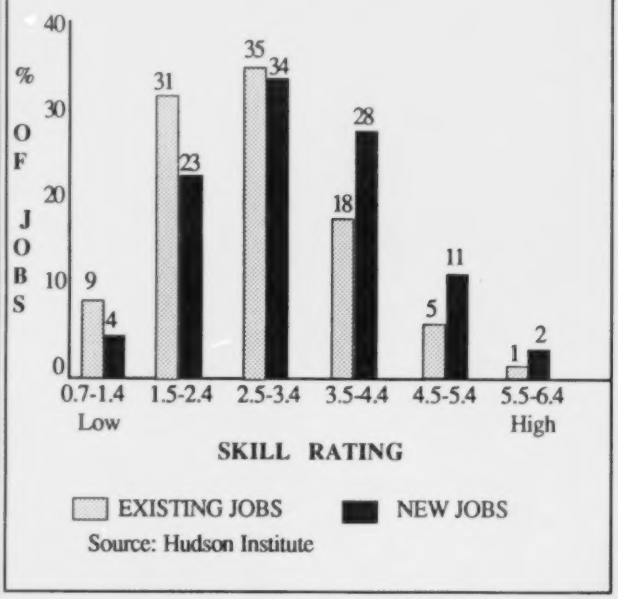

THE LOOMING MISMATCH
BETWEEN WORKERS AND JOBS
LEVEL 1
Has limited reading vocabulary of 2,500 words. Reading rate of 95 to 125 words per minute. Ability to write simple sentences.
LEVEL 2
Has limited reading vocabulary of 5,000 to 6000 words. Reading rate of 190 to 215 words per minute.
LEVEL 3
Can read safety rules and equipment instructions and write simple reports.
LEVEL 4
Can read journals and manuals, and write business letters and reports.
LEVEL 5
Can read scientific/technical journals and financial reports, write journal articles and speeches.
LEVEL 6
Has same skills as Level 5, but more advanced.
ACTUAL SKILL LEVELS OF NEW WORKERS
Percent of 21-to-25-year-olds entering the labor market from 1985 to 2000
SKILL LEVELS NEEDED FOR NEW JOBS
Percent of new jobs created from 1985 to 2000
Source: Hudson Institute, Labor Dept.

workers will be minorities and immigrants who tend to have less education and fewer skills than other employees.

Further, **Business Week** states that the nation is facing a monumental mismatch between jobs and the ability of Americans to do them. Three forces are combining to produce this gap. First, technology is upgrading the skills required in most jobs. Second, job growth will be mainly in high skill occupations. Most of these jobs will be in the service sector. Finally, the way in which work now is being organized requires a completely new set of skills. As companies shift from the old models of assembly-line production to cooperative work teams, employees will have to sharpen their communications skills. Indeed all skills will need to be sharpened with the decline of lower skilled jobs.

LOW-SKILLED JOBS ARE DECLINING

Table 1a



Source: Hudson Institute

SKILL RATINGS OF TYPICAL JOBS*

Table 1b

Natural Scientists	5.7
Lawyers	5.2
Engineers	5.1
Management	4.4
Teachers	4.2
Technicians	4.1
Marketing and Sales	3.4
Construction	3.2
Administrative	2.9
Service Occupations	2.6
Precision Production	2.5
Farmers	2.3
Transport Workers	2.2
Machine Setters	1.8
Hand Workers	1.7
Helpers and Laborers	1.3

SOURCE: Hudson Institute

*Rating based on the amount of math, language and reasoning skills required by the job.

Currently, corporate America spends $200 billion training and retraining its workforce and at least $35 billion on remedial training annually. These amounts will increase as the workplace changes. Additionally, research indicates that most workers will change their jobs at least five times and their occupation three times during their lifetime. Today's workers must have the capability of being retrained to advance or even maintain employment.

Important labor market and demographic trends are developing which must be reflected in changing curricula, particularly in vocational programs. Increasingly, the occupations which show the most rapid growth are those that require the highest levels of literacy. At the same time, groups which are expected to form the largest share of the labor force entrants through the year 2000 show lower educational achievement and higher dropout rates. This points to a growing gap between new job skills required and skilled workers available for those jobs. As a result, competition for the brightest graduates is increasing.

Florida has special problems and challenges that require new levels of human skills, entrepreneurship, technical advances and flexibility by public and private institutions. Florida has become a high technology state as a result of targeted industrial recruitment efforts. However, it is service industries which will provide most of the new jobs through the year 2000. These new jobs, while they will not be "high tech," will require new skills and workers who can learn and adapt quickly. Special emphasis on the educational needs of these industries (insurance, finance, hospitality, health, real estate, trade, education and government) will be critical.

All economic sectors in Florida will be required to adjust to a world market in which Florida's traditional advantages of low-cost labor, low taxes, inexpensive land, and sunshine are lessened. The new competitive edge for Florida business and industry must be found in its institutions of learning by utilizing the knowledge, skills, innovation and technological breakthroughs they provide.

THE OCCUPATIONS OF THE FUTURE WILL REQUIRE MORE EDUCATION

Table 2

	Current Jobs	New Jobs
Total	100%	100%
8 Years or less	6%	4%
1-3 Years of High School	12%	10%
4 Years of High School	40%	35%
1-3 Years of College	20%	22%
4 Years of College or more	22%	30%
Median Years of School	12.8	13.5

SOURCE: Bureau of Labor Statistics, Hudson Institute.

A MANDATE FOR ACTION

In 1984, the **Southern Regional Education Board's Commission for Educational Quality** developed recommendations for vocational education. This was done to ensure that all secondary school students would be encouraged and expected to develop the academic skills which should be the fundamental goal of all high schools.

"Schools must completely integrate academic and vocational education if they are to successfully prepare students for life in the 'information age."

–Florida Commission on Vocational Education

In the same year, at the request of the **Florida Vocational Association**, the State Board of Vocational Education created the **Florida Commission on Vocational Education**. The goal of this Commission was to make recommendations for improving vocational education in Florida through the year 2000.

One of the primary conclusions of the **Commission on Vocational Education** was that schools must completely integrate academic and vocational education if they are to successfully prepare students for life in the "information age." The vast majority of emerging occupations do not require a college education. Occupational emphasis is increasingly placed on technology, interpersonal relations skills and decision making abilities. Consequently, the educational focus must change for most students if they are to relate academic studies to preparation for life.

The **Florida Commission on Vocational Education** made several recommendations which focused on the need for the expansion of vocational-technical programs. These programs should receive continuous attention as educational issues are refined and should be designed to increase the participation of diverse populations including at-risk students. As a result of those recommendations, several groups provided suggestions for the implementation process. Three of the primary groups were

the **Career Education Task Force**, the **Secondary Vocational Education Task Force**, and the **State Technical Committee for Industrial Arts/Technical Education.**

The **Career Education Task Force** recommended:

√ Career plans for every student exiting the eighth grade.

√ Standards for career development, K-Adult.

√ Preservice and inservice curriculum development which incorporates career, technology and economic education.

√ Redefinition of role for the occupational specialist.

√ Recognition of exemplary career development programs.

√ Promotion of elementary and middle school career interest clubs.

√ The development of an educational career planning course.

The Secondary Vocational Education Task Force, adopted the Southern Regional Education Board's recommendations. They also developed the following policy statement:

"...the State of Florida shall establish an educational system which provides each student with the guidance and opportunity to complete high school with the competence and credentials to pursue postsecondary education at both the area center and college level and to secure immediate employment. Students should complete twelve years of education, exit Florida's public education system, and have available to them as many options as possible."

The Secondary Vocational Education Task Force also stated that the components necessary for such a system are those which would provide students with help in four areas:

√ Self awareness;

√ Career awareness;

√ Academic preparation;

√ Vocational preparation.

This task force recognized that while activities in all four areas are conducted to some degree in all school districts, there is no structured state framework for their delivery. A sequence of experiences should be designed which would enable each student to:

1. Acquire sufficient awareness of interests, aptitudes and capabilities in order to better assess information received relative to requirements and characteristics of various career areas.

2. Accumulate information about a broad range of career options including the way in which individual interests and aptitudes compare with various career requirements.

3. Prepare, by the end of grade eight, a four-year academic plan which would contain all of the courses necessary to assure preparation to pursue postsecondary education and to secure employment in an area of interest upon graduation from high school.

The Florida High Technology and Industry Council and the **Florida Council on Vocational Education** have made similar recommendations in previous studies. A summary of these recommendations was presented at the Commissioner's retreat in July 1988. Following this retreat, a number of meetings were conducted to generate additional input from the entire education community. This input has driven the policy statement, list of objectives, and Department of Education initiatives that follow.

The driving force

STUDENTS GRADUATING FROM FLORIDA'S PUBLIC SCHOOLS SHALL BE PREPARED TO BEGIN A CAREER AND CONTINUE THEIR EDUCATION AT A POSTSECONDARY TECHNICAL SCHOOL, COMMUNITY COLLEGE OR UNIVERSITY.

How we get there

1. SELF AND CAREER AWARENESS – GRADES K - 5

STUDENTS SHOULD HAVE A CAREER DEVELOPMENT PROGRAM WHICH INFUSES SELF, CAREER, AND TECHNOLOGY AWARENESS ACTIVITIES INTO THE CURRICULUM.

Each student should have experiences which promote an awareness of the world of work and the student's relationship to it. These experiences should assist the student in gaining an awareness of self and an understanding of the value of work. Work should be viewed as a means of becoming a self-sufficient and contributing member of society. In addition, these experiences should allow for the expression of the student's talents and capabilities. Sample competencies include:

- Acquiring knowledge of the importance of a positive self-concept to career development.
- Developing skills for interacting with others in a multicultural environment.
- Becoming aware of the importance of emotional and physical development in career decision making.
- Acquiring an awareness of the interrelationship of lifestyles and careers.
- Becoming aware of changing occupational roles for males and females.
- Developing an awareness of technology.

2. PERSONAL ASSESSMENT AND TECHNOLOGICAL LITERACY – GRADE 6

STUDENTS SHOULD HAVE A PROGRAM OF PERSONAL ASSESSMENT AND TECHNOLOGICAL LITERACY INSTRUCTION.

Special emphasis should be placed on assisting students with the assessment of personal aptitudes, abilities, and interests prior to orientation and exploration of careers. In order for further career information to be as meaningful as possible,

a student should evaluate career information in relation to his or her personal assessment results. The student should also learn basic technological concepts. Sample competencies include:

* Developing and utilizing a positive self concept for career development.
* Understanding the emotional and physical development required for proactive career decision making.
* Understanding the value of personal responsibility, good work habits and planning for educational opportunities.
* Comprehending the significance of technology, tools and materials in the world of work.
* Identifying career opportunities in the field of technology.
* Demonstrating technological literacy and its application in all subject areas.
* Demonstrating skills of working in a cooperative environment.

3. CAREER ORIENTATION AND EXPLORATION – GRADES 7-8

STUDENTS SHOULD IDENTIFY GOALS FOR WHICH THEY ARE STRIVING. GOALS MAY CHANGE AS FURTHER EXPERIENCES ARE OBTAINED. FOUR-YEAR PLANS FOR GRADES 9-12 SHOULD BE DEVELOPED WITH INPUT FROM STUDENTS, FAMILIES AND SCHOOL PERSONNEL. THE PLANS SHOULD BE EVALUATED AT LEAST ANNUALLY AND REVISED AS REQUIREMENTS CHANGE OR STUDENTS' GOALS BECOME BETTER DEFINED.

A broad orientation to the 12 occupational clusters should be provided to students as the first step in the process of focusing on career goals. Students who possess information about their likes and dislikes, aptitudes and interests are able to begin the task of comparing education and work requirements of occupational clusters to their personal situations.

Using the experiences of the career orientation phase and small group guidance activities, students may select several of the clusters for a more in-depth examination. This second phase, career exploration, helps students to more clearly define their career goals. By exploring career and educational options, students are better prepared to develop tentative career and educational plans for high school. Sample competencies include:

* Relating educational achievement to career opportunities.
* Understanding the attitudes necessary for success in work and learning.
* Applying skills to locate, understand, and use information.
* Identifying types and levels of work performed across a broad range of occupations.
* Relating careers to the needs and functions of the economy and society.
* Choosing alternatives and making decisions to plan and pursue tentative educational and career goals.
* Understanding how sex-role stereotyping, bias and discrimination limit career choice, opportunity and achievement.
* Assessing personal aptitudes, interests and abilities relative to the 12 career clusters.
* Learning to integrate academic and vocational course content in an applied context.

4. ACADEMIC AND SPECIALIZED SKILL DEVELOPMENT – GRADES 9-12

STUDENTS SHOULD COMPLETE HIGH SCHOOL WITH THE COMPETENCE TO CONTINUE ON TO POSTSECONDARY EDUCATION AND TO ENTER THE WORKFORCE. THE STRENGTHENING OF BASIC SKILLS THROUGH APPLIED LEARNING SHOULD BE A MAJOR COMPONENT OF BOTH ACADEMIC AND VOCATIONAL INSTRUCTION.

Curriculum and instructional strategies should be developed for both academic and vocational teachers to strengthen basic competencies that assist students in the transition from school to work by including:

* Integrating the teaching of vocational and academic instruction.
* Teaching academic content through applied science, mathematics and communication courses as designed by national consortia.
* Infusing applied teaching methods into existing science, mathematics and communication courses.
* Making decisions and choosing alternatives in planning and pursuing educational and career goals.
* Understanding the interrelationship of life roles and careers.
* Understanding changes in male and female roles and how they relate to career decisions.
* Applying skills to revise the students' career plan.
* Understanding the relationship between educational achievement and career planning, training and placement.
* Utilizing positive attitudes toward work and learning.
* Researching, evaluating and interpreting information about career opportunities.
* Revising vocational curriculum and instruction so that greater emphasis is placed on higher level mathematics, sciences, communications and technical concepts, thinking skills and other skills that underlie the competencies of an occupational area.

Special emphasis will be given at the 11th grade through academic advising and activities that focus on planning for postsecondary job entry or continued education upon completion of high school. Therefore, during the 11th grade the Career/Education Planner will be extended. This plan will facilitate the student's individual career development at the postsecondary level.

Many vocational job preparatory programs will be redesigned to provide sets of core competencies. Students entering these program clusters would move from the core competency instruction into selected, specialized programs without diminishing academic requirements for graduation.

Articulation of vocational-technical curricula in grades 11 through postsecondary, with career exits after grade 12 and postsecondary, is commonly known as "2+2." These "2+2" programs are planned four-year experiences in which the last two years of high school are joined with two years of postsecondary study along with on the job learning. Examples of competencies include:

* Developing a marketable skill.

* Locating, obtaining, maintaining and advancing in a job, utilizing teachers, guidance professionals and occupational placement specialists, and job coaches.

* Understanding how societal needs and functions influence the nature and structure of work.

5. SKILL DEVELOPMENT AND CAREER ADVANCEMENT POSTSECONDARY EDUCATION

STUDENTS SHOULD COMPLETE POST-SECONDARY EDUCATION PROGRAMS WHICH ENABLE THEM TO SUCCESS-FULLY ENTER THE WORLD OF WORK, MAINTAIN COMPETENCE IN CURRENT EMPLOYMENT, ADVANCE WITHIN THEIR OCCUPATIONAL FIELDS OR CHANGE OCCUPATIONS.

Curriculum and instruction in postsecondary education should extend students' abilities to transition to and within the workplace. The ability to be an adaptable learner is the emerging requirement for workers of the future. Every student should be prepared to succeed in the changing labor market with high level skills that will be transferable as new careers emerge.

The following sample competencies for postsecondary completors or graduates support successful employment:

* Maintaining a positive self concept and appropriate behavior to succeed in various educational and employment settings.

* Understanding the "employability skills" necessary to enter, succeed and advance in employment.

* Reinforcing the relationship between higher level education, career opportunities, and life long learning.

* Developing skills to locate, evaluate, interpret and transition into evolving career patterns.

* Demonstrating, understanding and coping effectively with personal changes and the need for retraining or further education.

* Improving skills to control bias, stereotyping, and discrimination because of sex, race, national origin, religion or handicap.

* Developing new and synthesizing existing skills to creatively solve unanticipated problems.

* Utilizing existing knowledge and skills in new modes of thinking to solve problems.

* Developing higher order communication skills.

* Understanding the impact of technology on, the workplace, humanity and the environment.

Students who require postsecondary instruction in order to achieve career goals should have access to the appropriate level of instruction. Skill development and career advancements at the postsecondary level are delivered through two types of delivery systems: area vocational-technical centers and community colleges.

Area vocational-technical centers and community college departments designated as area vocational centers award postsecondary adult vocational certificates. Community colleges award Associate in Science (A.S.) degrees and selected, postsecondary vocational certificates composed of college credit coursework.

Both community colleges and universities offer academic coursework. The community colleges offer aca-

demic coursework in support of the A.S. degree and the Associate in Arts (A.A.) degree. The A.A. degree transfers into the baccalaureate programs of the universities. While not vocational by definition, baccalaureate degree programs provide the next educational step for many careers. Universities are responsible for programs leading to baccalaureate degrees and advanced degrees. Some vocational-technical courses which are parts of certificate and A.S. degrees are accepted in transfer to universities through the common course numbering system, by articulation agreements, or at the discretion of the university. These courses tend to be in the health, public service, technology and business areas. These efforts should be expanded.

Articulation between each delivery system should emphasize the traditional strengths of each, while providing the maximum flexibility for students to transfer credit for related instruction from level to level. Effective articulation will complement comprehensive student career and education advisement. Each student upon entering a specific vocational or professional program at an area vocational-technical center, community college or university should receive integrated career and educational advisement which leads to a written plan for academic and occupational success. Completions, graduation rates, placements, and other outcome data should be available to students as an integral part of the advisement process. Students must also be prepared to adapt to a changing labor market and new or emerging careers.

Instructors and faculty at all postsecondary institutions should be aware of recent advances in their field of study. They should increase currency and relevancy of course content by infusing "real world" applications and examples. Instructors and faculty at all levels of postsecondary education should make more extensive and direct use of technology for instruction, research and service.

All levels of postsecondary education should provide program related opportunities to experience the workplace prior to completion or graduation. Such work experience may include cooperative education, work study, apprenticeship, internship, practicum, volunteerism, and early field experience. These experiences should strengthen the student's appreciation of coursework and their transition into the workplace.

Programs may utilize alternate delivery systems. For example, in response to the rapid changes in world trade and increase in free enterprise competition, the Academy of Entrepreneurship has been created for high school, vocational-technical center and community college students. It offers the opportunity to learn and use those skills necessary for success in business ownership and management.

Education is a lifelong pursuit. Increasingly, those basic skills required for competative employment are the same as those for postsecondary achievement. To maintain competence in current employment, advance within a chosen field or change occupations, employees and employers must have periodic access to high quality education and training. Vocational-technical centers, community colleges, and universities play a critical role in upgrading the competencies of current employees through active continuing education or "open campus" programs. This education and training, which encompasses basic adult literacy, specific technical competency and advanced academic proficiency is provided by area vocational-technical centers, community colleges and universities at work sites.

Postsecondary institutions must accelerate their capacity to prepare students for Florida's emerging economic challenges.

6. INFORMATION SHARING AND PARTNERSHIP BUILDING - GRADES K - COMMUNITY

ALL LEVELS OF EDUCATION SHOULD INTENSIFY EFFORTS TO SHARE INFORMATION WITH THE INTENT OF INVOLVING PARENTS, BUSINESS/INDUSTRY AND THE COMMUNITY IN THE PROCESS OF EDUCATING STUDENTS AND SUPPORTING FLORIDA'S ECONOMY.

Greater emphasis is now being placed on business and industry to enter into joint partnership with the education community to provide more technical training. It is imperative that we expand partnerships with companies to accelerate the application of technology in the classroom and in the workplace.

A successful education system is one in which every stakeholder feels a sense of ownership and involvement in the system's programs and services. Within each community, there is a symbiotic relationship between business and education. Business and industry need a well-trained, adaptable workforce; education needs expanded career options for its students. The private sector realizes that education is a key to maintaining its competitive edge as technological change accelerates and expanding world markets increase competition.

As competition intensifies, education is devoting a substantial portion of its resources to enhance employees' basic academic skills, technical expertise and professional competence. However, the availability of education resources does not assure that the business or industry requiring these resources can locate them.

A statewide service for education and economic development information is available. This service, ACCESS, provides toll free information on education programs and services, research material and people who can help. Such information is not only a key to locating specialized education programs and other targeted services.

It is important for business and parents to share information on the progress of this **Blueprint for Career Preparation**. The results will be measured by the ability of future graduates to succeed in the job market and the ability of employers to find qualified workers.

The Department already has a new method for tracking students through their careers and evaluating whether the educational programs are matching the needs of employers. Florida Education and Training Placement Information Program, FETPIP, and others will help monitor the impact of the **Blueprint for Career Preparation** as it goes through the various stages of development.

ACCESS HOTLINE

1-800-342-9271

Your source for information on education and economic development.

Examples of partnerships

While much can be done within the educational setting to provide more appropriate student assessment, career and educational information and assistance with financial aid and related services, other issues can be best addressed by an informed and involved business community. Many business partnerships presently provide students with opportunities to experience the workplace firsthand. There are no rules for information systems to promote successful business-school partnerships. Partnerships are interpreted to include any combination of organized collaboration between business and education aimed at improving the quality of instruction for students. There are many successful and effective programs, each differing in structure, program, goals and activities.

Below is a sampling of projects and programs that result from collaboration between education and the business community.

* Business support of annual awards, scholarships and recognition banquets for students and teachers.
* Career shadowing experiences where a student joins a business, trade or other professional person for a day "on the job."
* Adopt-a-school, often referred to as "partners in excellence" in Florida school districts.
* Tutoring of students by employees on release time from employers.
* Summer internships and employment programs for youth and teachers.
* Mini-grants to teachers in academic areas of special concern to a business sponsor, usually targeted for innovative projects not normally funded through school channels.
* Assistance with school publications by providing editorial or production help.
* Providing materials, equipment or facilities, such as providing a place to display student work, donating used equipment, loaning a meeting room or auditorium.
* Providing workshops for teachers and administrators, especially in technical areas where instructors' skills need constant updating.
* Support for Economic/Entrepreneurial Education.
* Academic fairs: sponsoring, judging or assisting students through mentoring and providing awards.
* Quick-start training programs for business and industry.
* On-site basic skills remediation for business and industry.

Florida's business and industry community should expand its support of advisory committees, faculty exchange programs, school and community partnerships, scholarship fundings and similar school-to-work transition activities.

Everyone benefits

All "partners" benefit from well-designed, effective collaboration between businesses and schools.

Students:

* become better informed consumers and better prepared employees.
* understand how basic skills are used in business.
* learn about career choices.
* receive enrichment beyond school curriculum capabilities.
* learn about the free enterprise system.
* gain valuable adult role models.
* interact with and better understand people from the world of work.

Teachers and schools:

* become aware of business views.
* are challenged by new ideas to expand their teaching.
* receive support and recognition for their efforts.
* become alert to the gaps between expectations of business and the skills of their students.
* gain expertise that helps them provide up-to-date instruction.
* improve operations through management and technical assistance.

Business and industry:

* contribute to the development of human resources.
* discharge their community responsibility more effectively.
* get the best possible return on their education tax dollars.
* reduce on-the-job training time.
* increase equal employment opportunities.
* build employee morale through involvement.
* enhance their community image.
* enlarge the pool of well-prepared potential employees.
* encourage more informed public policy decisions affecting business.
* communicate the expectations of the business and employment world.
* gain direct access to and understanding of the school system.

Communities:

* improve quality of life.
* enhance community stability.

* contribute to higher employment.

* promote healthier economic climate.

Parents:

* develop a more comprehensive understanding of career-related information and sources.

* become better informed about career and educational options.

* interact more purposefully with their children to influence better career and educational planning.

These benefits are substantial; however, the Department must still address the development and distribution of materials supporting increased parental involvement in the career development process. Accurately informed parents can encourage more appropriate career and education goal setting. Parents are also uniquely able to support the refinement and achievement of their children's goals.

"Since everyone knows the problem, business needs to adopt that famous Noah principle: No more prizes for predicting rain. Prizes only for building arks."

–Louis V. Gerstner, American Express President

A COMMITMENT TO LEADERSHIP

THE DEPARTMENT OF EDUCATION WILL:

-promote the use of technology to implement the **Blueprint for Career Preparation**.

-extend career development partnerships with other agencies, businesses, industries and the military to ensure maximum cooperation and coordination.

-supply technical assistance and training activities to school districts, community colleges and universities for implementation of the **Blueprint for Career Preparation**.

-seek continued support from the Legislature for implementation of the **Blueprint for Career Preparation**.

-promote the current policy that every high school student will achieve a minimum of 24 graduation credits.

-implement a GOLDSEAL Vocational Endorsement and Scholarship Program to recognize outstanding high school students enrolled in a career preparation program.

-support implementation of Florida Career Development Standards and a statewide model of career preparation (K-Adult).

-develop and update products and other resources to implement the **Blueprint for Career Preparation** which respond to various demographic areas and special needs populations.

-continue the development of core curricula which deliver a broad basic background in technology.

-develop materials and strategies to ensure a strong parent, business and teacher involvement in student career planning.

-promote articulation strategies which will insure a smooth transition from secondary to postsecondary education.

The Department will commit state and federal funds to establish pilot sites, test instructional materials and expand the concepts over a six year period.

"The Department will lead, promote, push, prod and assist everyone involved to turn this Blueprint into reality."

-Betty Castor, Florida Commissioner of Education

A PLAN FOR ACTION

YEAR ONE (1988 ~ 1989)

- Initiate an awareness campaign to introduce the **Blueprint for Career Preparation**.
- Appoint a business advisory group to monitor progress and suggest changes along the way.
- Establish four Florida Blueprint pilot sites (Orange, Polk, Hillsborough and Palm Beach).
- Distribute the Career Development Standards to the identified pilot sites for review.
- Expand the use of Florida produced career development products and services to an additional 100 high schools.
- Develop a prototype Career Development Handbook.
- Revise the existing career related products and make career information available to middle schools.
- Appoint a middle grades committee to refine the curriculum and to incorporate appropriate career development activities for the 19 SOC (Standard Occupational Classification) clusters.
- Research a prototype eighth grade career planner.
- Research prototype parent materials.
- Plan model inservice and preservice training programs for instructional teams that will implement the career development portions of the **Blueprint for Career Preparation**.
- Promote business and education partnerships and other linkages by marketing ACCESS to potential users.
- Finalize the Technology Education and Economic Education curricula.
- Test the applied basic skills in math (inclusive of algebra I), principles of technology (physics) and applied communications (English).
- Participate in the development of specifications for applied biology and applied chemistry curriculum.
- Develop a core curriculum for vocational programs using the model developed for the electronic programs for the secondary and postsecondary level. Initiate the agriculture and automotive mechanics curriculum during 1988-89.
- Conduct evaluations at pilot sites.

YEAR TWO (1989 ~ 1990)

- Develop a dissemination and diffusion plan for the **Blueprint for Career Preparation.**
- Identify three additional school districts to designate as Florida Blueprint pilot sites.
- Design, field test and revise prototype career development materials.
- Revise, print and distribute the Career Development Handbook to support the implementation of the Career Development Standards.
- Design and pilot inservice and preservice training programs.
- Design and initiate the development of the eighth grade career planner.

- Design and prototype parent-use materials.
- Design and initiate the development of elementary career development modules.
- Implement the GOLD SEAL Vocational Endorsement and Scholarship Program.
- Develop the model technology education laboratory.
- Use IMTS concepts in Blueprint pilot sites at the high school level.
- Complete the model training plan, prepare materials and conduct pilot workshops for instructional teams using the Summer Institute format.
- Complete the development of the applied biology and chemistry curricula.
- Convert Florida Blueprint pilot middle school and high school Industrial Arts laboratories to Technology Education laboratories.
- Pilot test the automotive core curriculum in secondary through postsecondary settings and develop plan for statewide implementation.
- Pilot test the core curriculum for agriculture program in secondary through postsecondary settings.
- Conduct evaluations at pilot sites.
- Identify health occupations core competencies.
- Develop initial set of suggested programs of study for students interested in pursuing vocational education.

YEAR THREE (1990 ~ 1991)

- Provide inservice and implementation support for 13 additional districts.
- Refine all existing career development materials and prepare a dissemination plan for the new products.
- Complete and pilot test the Education and Career Planner.
- Revise and distribute parent-use materials.
- Pilot test the biology and chemistry curriculum in the Blueprint pilot sites.
- Initiate the statewide implementation of the automotive core curriculum.
- Revise the core curriculum in agriculture based on the pilot test results.
- Develop and disseminate a Technical Assistance Report on Career Preparation for Handicapped Students.
- Develop Teacher Education Center components and deliver inservice training at pilot sites.
- Develop technology literacy curriculum, K-5.
- Conduct interagency workshops to support the Blueprint goals.
- Field test the health occupations core competencies in pilot sites.
- Refine suggested programs of study for vocational education.
- Initiate development of interdisciplinary vocational education programs.
- Conduct pilot site evaluations.

YEAR FOUR (1991 ~ 1992)

- Provide inservice training and implementation support for pilot sites in 15 additional districts.
- Disseminate career development materials, including teacher developed Best Practices.
- Distribute revised Career Development Handbook to facilitate use of new products and processes.
- Upgrade English and Math requirements for business education programs.
- Initiate the statewide implementation of agriculture core curriculum.
- Fully implement the automotive core curriculum.
- Begin statewide the implementation of the applied biology and chemistry curriculum.
- Conduct evaluations of the additional pilot sites.
- Evaluate the Career and Educational Planner at eighth grade and design a postsecondary Planner to be used at the 11th grade level.
- Expand Technology Literacy curriculum, K-5.
- Expand partnerships with business and industry as well as educational vendors to accelerate the implementation of the Blueprint in the classroom.
- Revise the health occupations core competencies based on the pilot test results.

YEAR FIVE (1992 ~ 1993)

- Provide inservice training and implementation support for the pilot sites in 15 additional districts.
- Fully implement the agriculture core curriculum.
- Conduct evaluations of the additional pilot sites.
- Expand partnerships with business and industry as well as educational vendors to accelerate the implementation of the Blueprint in the classroom.
- Initiate the statewide implementation of the health occupations core competencies.
- Update all career development products.
- Update Technology Literacy curriculum.
- Complete and pilot the 11th grade postsecondary planner.

YEAR SIX (1993 ~ 1994)

- Provide inservice training and implementation support for additional pilot sites in the final 13 districts.
- Conduct a comprehensive evaluation study of the **Blueprint for Career Preparation** to determine the effectiveness of program implementation.
- Expand partnerships with business and industry as well as educational vendors to accelerate the implementation of the Blueprint in the classroom.
- Update all career development products.
- Pilot the postsecondary planner.
- Evaluate Technology Literacy curriculum.

APPENDIX 1

GLOSSARY OF TERMS

1. Applied courses - Courses developed through national consortia for the purpose of making academic concepts and principles relevant to the workplace. Courses have been developed for mathematics, communications and science. These courses are Applied Communications, (English), Applied Mathematics (math) and Principles of Technology (science).

2. Articulation - A planned process linking two or more educational systems to help students make a smooth transition from one level of education to another without experiencing delays or duplication of learning.

3. Blueprint pilot sites - A grouping of schools identified by a school district, composed of one elementary, middle/junior high, and high school, and appropriate postsecondary institutions which cooperate to achieve the objectives of the **Blueprint for Career Preparation**.

4. Career development - A series of experiences from kindergarten through adulthood focusing on individual growth in the process of choosing, entering and progressing through the workplace.

5. Cross Curricular Teams - A grouping of vocational and academic teachers who develop instructional strategies to encourage the coordination of integrating various teaching methods into their classes.

6. Economic education - The study of the production, distribution and consumption of wealth in a given community or nation.

7. Gold Seal Vocational Endorsement Program - A program designed to recognize outstanding high school students who complete job preparatory vocational programs and meet all specified criteria.

8. Gold Seal Vocational Scholarship - A scholarship of $2000 which is awarded to Gold Seal Vocational Endorsement recepients who enroll in postsecondary technical programs at approved institutions.

9. SAIL - (System of Applied Individualized Learning, formerly IMTS) designed to identify a vocational student's basic skills and deficiencies, develop an instructional prescription, and provide individualized instruction for remediation of the deficiencies.

10. Self awareness - The comprehensive act of discovering what one can do (skills) and what one's personal and psychological characteristics are (i.e., attitudes, interests, values).

11. Technology education - A comprehensive, action-based educational program concerned with technical means including: their evolution, utilization and significance with industry; their organization, personnel, systems, techniques, resources, and products; and their social and cultural impact.

12. Tech prep - A program that delivers a broad basic background in technology in order to produce better prepared high school graduates for entry into postsecondary technical training programs.

13. "2 + 2 + 2" - An articulation process which enables students to start a sequence of educational programs in high school, proceed to a 2 - year postsecondary institution for more advanced learning, and then move on to a 4 - year college or university to pursue a related baccalaureate degree. A "2 + 2 + 2" sequence may be two years of high school plus two years of postsecondary education at a 2-year postsecondary institution, or two years at a 2-year postsecondary institution plus the additional two years required for a baccalaureate degree at a college or university.

APPENDIX 2

THE CHANGING OCCUPATIONAL STRUCTURE, 1984-2000

Occupation	Current Jobs (000s)	New Jobs (000s)	Rate of Growth (Percentage)
Total	105,008	25,952	25
Service Occupations	16,059	5,957	37
Managerial and Management Related	10,893	4,280	39
Marketing and Sales	10,656	4,150	39
Administrative Support	18,483	3,620	20
Technicians	3,146	1,389	44
Health Diagnosing and Treating Occupations	2,478	1,384	53
Teachers, Librarians, and Counselors	4,437	1,381	31
Mechanics, Installers, and Repairers	4,264	966	23
Transportation and Heavy Equipment Operators	4,604	752	16
Engineers, Architects, and Surveyors	1,447	600	41
Construction Trades	3,127	595	19
Natural, Computer, and Mathematical Scientists	647	442	68
Writers, Artists, Entertainers, and Athletes	1,092	425	39
Other Professionals and Paraprofessionals	825	355	43
Lawyers and Judges	457	326	71
Social, Recreational, and Religious Workers	759	235	31
Helpers and Laborers	4,168	205	5
Social Scientists	173	70	40
Precision Production Workers	2,790	61	2
Plant and System Workers	275	36	13
Blue Collar Supervisors	1,442	-6	0
Miners	175	-28	-16
Hand Workers, Assemblers, and Fabricators	2,604	-179	-7
Machine Setters, Operators, and Tenders	5,527	-448	-8
Agriculture, Forestry and Fisheries	4,480	-538	-12

SOURCE: Hudson Institute

APPENDIX 3

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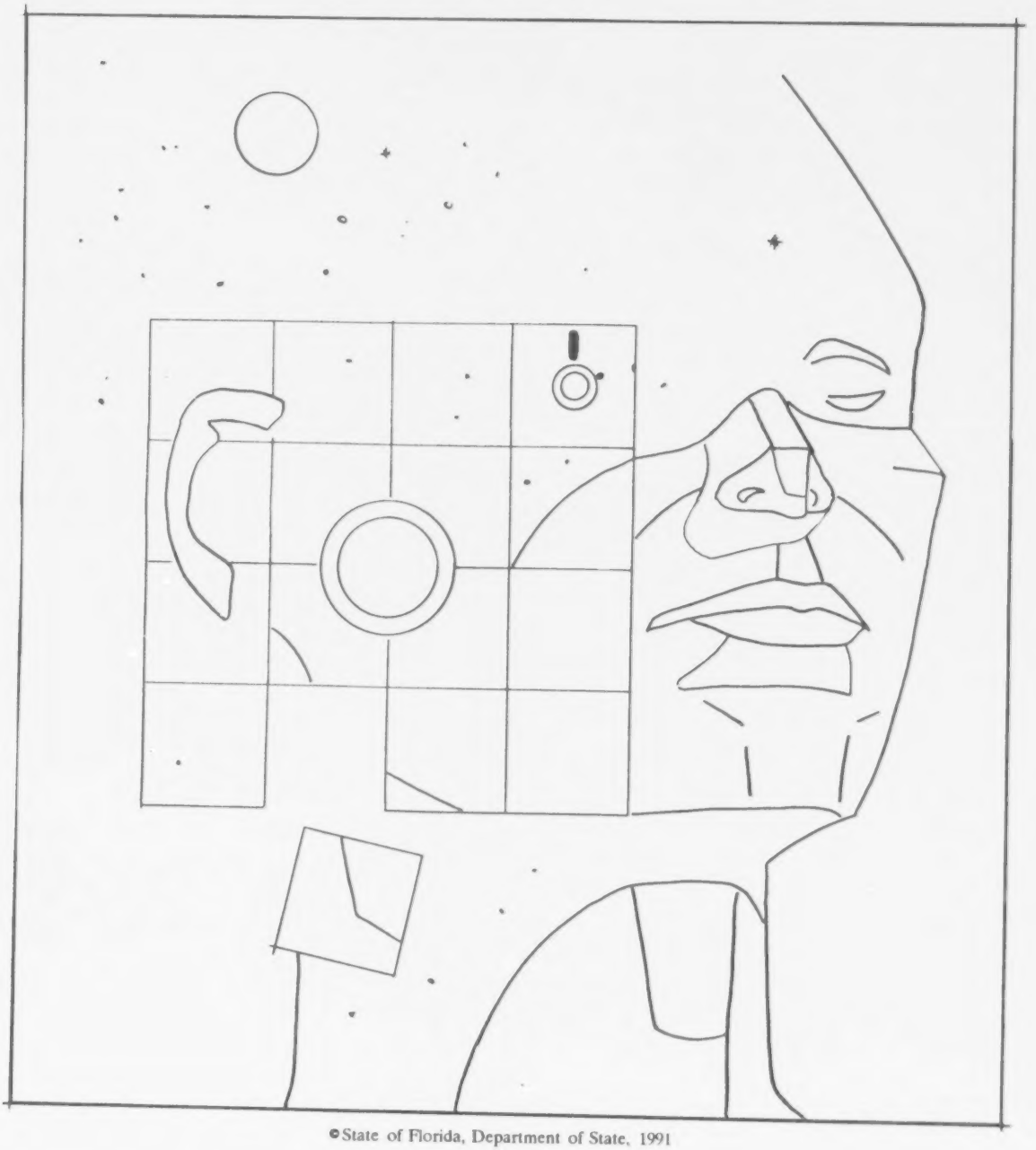

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